# ACEC-DOT BRIDGE SUBCOMMITTEE

Minutes of February 2, 2004 Meeting

## Attendees:

Greg Perfetti, NCDOT (Co-Chair)
Mark Pearson, Earth Tech (Co-Chair)
Dan Dock, PB
Kevin Austin, BHME
Allen Raynor, NCDOT
Lonnie Brooks, NCDOT

## I. LRFD Update

In December Jeff Smith led the FHWA training course for NCDOT on Load and Resistance Factor Design (LRFD) of prestressed concrete bridge girders. Mr. Smith is with the FHWA Southern Resource Center in Atlanta. The course was held on the Centennial Campus at NC State. DOT has initiated some design checks of ongoing projects using the LRFD design procedures. One of the early results of this effort is that deck overhang designs may have to change to handle higher loading conditions. Also, girder shear calculations are even more tedious than LFD. DOT has formed a LRFD Implementation Team that held its first meeting December 1st, 2003. The team is tasked with developing procedures and a schedule for full implementation of LRFD by October of 2007. Kevin Austin and Mark Pearson are working with team as the ACEC representatives.

## II. Upcoming Training Opportunities

NCDOT is arranging with AISI to hold a Steel Bridge Forum in Raleigh in mid-to-late-March (After the meeting it was determined that this event will be held July 12, 2004). Mark Pearson will check the ACEC event calendar for March and coordinate with Greg Perfetti. The tentative topics include: progress toward unification and simplification of the steel girder criteria covering both straight and curved girders, which are currently covered by separate provisions; moving forward with implementation of HPS 70 steel and the revised span-to-depth formulas; lateral flange top bracing for wind resistance; discussion on new applications of steel truss bridges as viable replacement alternatives for existing trusses in light of current steel technology; and others.
Greg Perfetti is also on a steering committee for an upcoming annual HPS Forum in Houston.

## III. Upcoming Policy Changes

- **Deck Slabs** the width will be increased to provide the 1½ inches for slip-forming the rails. When the barriers were recently widened to 1'-6" the edge distance had been reduced to ½ inch.
- **Cored Slabs** require some changes to the "S" bars to accommodate the additional slip-forming width.
- **Deck Overhang Slopes** will no longer be required to slope away from the girder, but will now parallel the deck cross-slope to the nearest ¼ inch in thickness at the edges effective in the May 2004 letting. The memo is forthcoming.
- **Approach Slabs** will all be 25 feet long (minimum). Ends will be perpendicular to the roadway for skew angles between 60 and 120 degrees inclusive. Others will be set to 60 or 120 degrees. Asphalt pavement on approach slabs has been eliminated.
- **New Span-to-Depth Ratio** criteria that emerged from the FHWA's HPS research programs have been adopted by NCDOT. They have not yet been adopted by AASHTO.

## IV. Design-Build

The tentative letting lists for design-build contracts are now posted on the DOT website at the following link:
http://www.doh.dot.state.nc.us/preconstruct/highway/dsn_srvc/contracts/design_build/let/db.htm
(There is an underline symbol "_" where spaces appear above.)

## V. Other

Lonnie Brooks provided a listing of Tentative Listing Of Projects for the 2004 calendar year. (See Attached.)

The Bridge Subcommittee is considering topics to propose for the Joint Conference in October. The potential topics relate to context sensitive design of bridges, including methods to reduce construction times to minimize traffic disruptions. Recent examples are the Hillsborough Street and Glenwood Avenue Bridges and the new pedestrian bridge over I-440.

## VI. Next Meeting

Next Meeting is scheduled for 9:00 AM Monday May 3, 2004 in Structure Design Conference Room B.